

Serial interface module, data from two SSI encoders via RS422, 32 bits /
125 kHz, 250kHz, 500kHz, 1MHz

Part no. **XN-322-2SSI**
178773

General specifications		
Product name		Eaton XN-322 Interface module
Part no.		XN-322-2SSI
EAN		7640130098374
Product Length/Depth		104.2 millimetre
Product height		16.8 millimetre
Product width		80.3 millimetre
Product weight		0.046 kilogram
Certifications		IEC/EN 61131-2 CE UL File No.: E135462 IEC/EN 61000-6-2 CULus IEC/EN 61000-6-4
Product Tradename		XN-322
Product Type		Interface module
Product Sub Type		None
Catalog Notes		Interface module for interpreting data from two absolute encoders via the RS422 interface, specifically designed with SSI encoders (e.g., absolute linear encoders) in mind. Natural binary and Gray code encoders (Gray code is internally converted to natural binary) are supported. 32-bit / 125 kHz, 250 kHz, 500 kHz, 1 MHz. Serial interface module, data from two SSI encoders via RS422, 32-bit / 125 kHz, 250 kHz, 500 kHz, 1 MHz The max. heat dissipation is specified as the maximum power produced inside the device's housing.
Features & Functions		
Features		Fieldbus connection over separate bus coupler possible
Functions		Binary/gray coding (Absolute encoder)
General information		
Channels		2, Transmission channel CL, D, Digital inputs, Absolute encoder
Current consumption		27 mA (typ.), for +24 V, Power supply - Input
Degree of protection		IP20
Mounting method		Rail mounting possible
Overvoltage category		III
Pollution degree		3
Resolution		32 Bit
Type		XN-322 serial interface module for XN300 XN300 technology module
Used with		XN-312-... XN300
Voltage type		DC
Ambient conditions, mechanical		
Height of fall (IEC/EN 60068-2-32) - max		1 m
Mounting position		Horizontal
Shock resistance		15 g, Mechanical, Half-sinusoidal shock 11 ms, 18 Impacts
Vibration resistance		5 - 8.4 / 8.4 -150 Hz, 3,5 mm / 1 g
Climatic environmental conditions		
Air pressure		795 - 1080 hPa (operation)
Ambient operating temperature - min		0 °C
Ambient operating temperature - max		60 °C
Ambient storage temperature - min		-20 °C
Ambient storage temperature - max		85 °C
Climatic proofing		Damp heat, constant, to IEC 60068-2-3

			Dry heat to IEC 60068-2-2
Environmental conditions			Condensation: prevent with appropriate measures
Relative humidity			0 - 95 % (non-condensing)
Electro magnetic compatibility			
Air discharge			8 kV
Burst impulse			2 kV, Supply cable 1 kV, Signal cable
Contact discharge			4 kV
Electromagnetic fields			1 V/m at 2 - 2.7 GHz (according to IEC EN 61000-4-3) 10 V/m at 0.08 - 1.0 GHz (according to IEC EN 61000-4-3) 3 V/m at 1.4 - 2 GHz (according to IEC EN 61000-4-3)
Emitted interference			47 dB (at 230 - 1000 MHz, Class A, radiated, high frequency) 40 dB (at 30 - 230 MHz, Class A, radiated, high frequency)
Radiated RFI			10 V
Surge rating			1 kV, Signal cable, unbalanced, EMC 0.5/0.5 kV, Supply cable, balanced/unbalanced), EMC
Voltage dips			Voltage dips: 10 ms/Voltage fluctuations: Yes
Terminal capacities			
Terminal capacity			0.25 - 1.5 mm ² , with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight) 0.2 - 1.5 mm ² , flexible without ferrule, H07V-K 0.2 - 1.5 mm ² , solid, H07V-U 24 - 16 AWG 0.25 - 1.5 mm ² , with ferrules without plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)
Gauge pin			A1 (according to IEC/EN 60947-1)
Stripping length (main cable)			10 mm
Insulating material group			I
Electrical rating			
Rated operational voltage			160 V (terminations)
Supply voltage at AC, 50 Hz - min			0 V
Supply voltage at AC, 50 Hz - max			0 V
Supply voltage at DC - min			18 V
Supply voltage at DC - max			30 V
Communication			
Bus termination			Internal, Digital inputs, Absolute encoder
Connection type			RS422, Digital inputs, Absolute encoder Push-in spring-cage terminal (plug-in connection), Connection design in TOP direction
Data transfer rate			Parameterizable, Digital inputs
Protocol			Other bus systems
Input/Output			
Load current			Not specified by plug manufacturer
Safety			
Explosion safety category for dust			None
Explosion safety category for gas			None
Potential isolation			Digital inputs, Absolute encoder: no
Design verification			
Equipment heat dissipation, current-dependent Pvid			1 W
Heat dissipation capacity Pdis			0 W
Heat dissipation per pole, current-dependent Pvid			0 W
Rated operational current for specified heat dissipation (In)			0 A
Static heat dissipation, non-current-dependent Pvs			1.06 W
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.

10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of assemblies			Meets the product standard's requirements.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 9.0

Programmable logic controllers PLC (EG000024) / Fieldbus, decentr. periphery - communication module (EC001604)			
Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Field bus, decentralized peripheral / Field bus, decentralized peripheral - communications module (ecl@ss13-27-24-26-08 [BAA073018])			
Supply voltage AC 50 Hz	V		0 - 0
Supply voltage AC 60 Hz	V		0 - 0
Supply voltage DC	V		18 - 30
Voltage type (supply voltage)			DC
Number of HW-interfaces CAN			
Number of HW-interfaces industrial Ethernet			
Number of interfaces PROFINET			
Number of HW-interfaces RS-232			
Number of HW-interfaces RS-422			2
Number of HW-interfaces RS-485			
Number of HW-interfaces serial TTY			
Number of HW-interfaces USB			
Number of HW-interfaces parallel			
Number of HW-interfaces wireless			
Number of HW-interfaces other			1
Supporting protocol for EtherCAT			No
Supporting protocol for TCP/IP			No
Supporting protocol for PROFIBUS			No
Supporting protocol for CAN			No
Supporting protocol for INTERBUS			No
Supporting protocol for ASI			No
Supporting protocol for KNX			No
Supporting protocol for Modbus			No
Supporting protocol for Data-Highway			No
Supporting protocol for DeviceNet			No
Supporting protocol for SUCONET			No
Supporting protocol for LON			No
Supporting protocol for SERCOS			No
Supporting protocol for PROFINET IO			No
Supporting protocol for PROFINET CBA			No
Supporting protocol for Foundation Fieldbus			No
Supporting protocol for EtherNet/IP			No
Supporting protocol for AS-Interface Safety at Work			No
Supporting protocol for DeviceNet Safety			No
Supporting protocol for INTERBUS-Safety			No

Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard eGPRS		No
Radio standard GSM		No
Radio standard LTE		No
Radio standard UMTS		No
IO link master		No
System accessory		Yes
Degree of protection (IP)		IP20
With potential separation		No
Fieldbus connection over separate bus coupler possible		Yes
Rail mounting possible		Yes
Wall mounting/direct mounting		No
Front built-in possible		No
Rack-assembly possible		No
Suitable for safety functions		No
SIL according to IEC 61508		None
Performance level according to EN ISO 13849-1		None
Appendant operation agent (Ex ia)		No
Appendant operation agent (Ex ib)		No
Explosion safety category for gas		None
Explosion safety category for dust		None
Certified for UL hazardous location class I		No
Certified for UL hazardous location class II		No
Certified for UL hazardous location class III		No
Certified for UL hazardous location division 1		No
Certified for UL hazardous location division 2		No
Certified for UL hazardous location group A (acetylene)		No
Certified for UL hazardous location group B (hydrogen)		No
Certified for UL hazardous location group C (ethylene)		No
Certified for UL hazardous location group D (propane)		No
Certified for UL hazardous location group E (metal dusts)		No
Certified for UL hazardous location group F (carbonaceous dusts)		No
Certified for UL hazardous location group G (non-conductive dusts)		No
Width	mm	80.3
Height	mm	16.8
Depth	mm	104.2